

# Justin Phillip Halberda

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## Academic Appointments

- 2003 - *Assistant Professor.* Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD
- 2003 - *Joint Appointment.* Department of Cognitive Science, Johns Hopkins University, Baltimore, MD
- 2003 - 2004 *Postdoctoral Fellow.* Laboratoire de Sciences Cognitives et Psycholinguistique, Ecole Normale Supérieure, CNRS. Paris, France  
Sponsor: Emmanuel Dupoux
- 2001 - 2003 *Visiting Fellow.* Department of Psychology, Harvard University, Cambridge, MA

## Education

- 1997-2001 New York University Ph.D. in Cognitive Psychology  
Advisor: Susan Carey
- 1992-1997 College of Charleston Magna cum laude  
B.S. Psychology  
B.S. Biochemistry  
B.A. Philosophy  
B.A. Chemistry

## Academic Awards and Honors

*Certificate of Distinction in Teaching*, Harvard University, 2003

*Graduate Fellowship*, National Science Foundation, 1998-2001

*Henry Mitchell MacCracken Graduate Fellowship*, New York University, 1997-2001

*Presidential Scholarship*, College of Charleston, 1995

*Lee Harwood Scholarship*, College of Charleston, 1993

*Sigma Alpha Phi*, College of Charleston Honors Society

*Phi Kappa Phi*, National Honors Society

## **Grant Support**

### External Funding

IGERT, "Unifying the Science of Language"

\$3,182,734, Division of Graduate Education

Years: 2007-2012

Role: Associated Faculty

Templeton Foundation, "Evolution, Cognition & Culture"

\$420,000, general funds and speaker series

Years: 2007-2010

Funding breakdown: \$270,000 Metanexus Institute, \$60,000 John T.

Templeton Foundation, \$60,000 in matching funds from JHU KSAS.

Role: Associated Faculty & Member of the Advisory Board

### Internal Funding

PURA, "Inference versus instruction"

\$3,000 Total costs

Years: 2006

Role: PI (Co-PI Meredith Brinster, *Provost Undergraduate Research Award*)

### Sponsored Grants

NSF, "Logical Reasoning In Human Infants"

\$135,000, tuition and stipend costs

NSF 06-592, Graduate Research Fellowship Program

Years: 2006-2009

Role: Sponsor (Co-Sponsor Lisa Feigenson, NSF predoc to Mariko Yamaguchi)

## Professional Activities

### Organizations and Societies

Association for Psychological Science  
Eastern Psychological Association  
Society for Research on Child Development  
Vision Sciences Society

### Grant Review Panels

National Science Foundation, April 2005

### Reviewing: Journals Ad Hoc

*Perception & Psychophysics*  
*Psychonomic Bulletin & Review*  
*Psychological Science*  
*Cognition*  
*Developmental Science*  
*Cognitive Science*  
*Psychological Review*  
*Infancy*  
*Journal of Experimental Child Psychology*  
*BUCLD Language Conference*  
*Language and Cognitive Processes*

## Refereed Journal Publications

Halberda, J. (submitted). From association for symbol? Children progress from using an associative word-learning strategy to reasoning logically from age 2-3 years.

Feigenson, L. & Halberda, J. (submitted). Conceptual knowledge increases infants' memory capacity.

Halberda, J., Mazocco, M. & Feigenson, L. (submitted). Individual differences in nonverbal number acuity predict maths achievement.

Pietroski, P., Halberda, J., Lidz, J. & Hunter, T. (submitted). Beyond Truth Conditions: an investigation into the semantics of 'most' in adults.

Lidz, J., Halberda, J., Pietroski, P. & Hunter, T. (submitted). Comparison, subtraction and the psychosemantics of most.

- Halberda, J. & de Marchena, A. (in revision). When A=B: Children form and reason using arbitrary equivalence classes.
- Halberda, J. & Goldman, J. (in revision). One-trial learning in 2-year-olds: Children learn new nouns in 3 seconds flat.
- Halberda, J., Simons, D. J. & Whetherhold, J. (in revision). Superfamiliarity affects perceptual grouping but not the capacity of visual working memory.
- Halberda, J., Simons, D. J. & Whetherhold, J. (in revision). The flicker paradigm provides converging evidence for a 3-item limit of visual working memory.
- Halberda, J. & Feigenson, L. (2008). Developmental change in the acuity of the "Number Sense": The approximate number system in 3-, 4-, 5-, 6-year-olds and adults. *Developmental Psychology*, in press.
- Halberda, J., Taing, L. & Lidz, J. (2008). The development of "most" comprehension and its potential dependence on counting-ability in preschoolers. *Language Learning and Development*, in press.
- Halberda, J. (2006). Is this a dax which I see before me? Use of the logical argument disjunctive syllogism supports word-learning in children and adults. *Cognitive Psychology*, 53(4), 310-344.
- Halberda, J., Sires, S. & Feigenson, L. (2006). Multiple spatially-overlapping sets can be enumerated in parallel. *Psychological Science*, 17(7), 572-576.
- Kouider, S., Halberda, J., Wood, J. & Carey, S. (2006). Acquisition of English number marking: The singular-plural distinction. *Language Learning and Development*, 2(1), 1-25.
- Feigenson, L. & Halberda, J. (2004). Infants chunk object arrays into sets of individuals. *Cognition*, 91, 173-190.
- Halberda, J. (2003). The development of a word-learning strategy. *Cognition*, 87, B23-B34.
- Halberda, J.P., Middaugh, L.D., Gard, B.E., Jackson, B.P. (1997). DAD1- and DAD2 like agonist effects on motor activity of C57 mice: Differences compared to rats. *Synapse*, 26 (1), 81-92.
- Bowers, R.L., Halberda, J.P., Mullen, L., May, K. (1997). Captopril alters schedule induced polydipsia, urination and defecation in rats. *Pharmacology, Biochemistry, and Behavior*, 57, 353-359.

## Invited Talks and Colloquia

### Word Learning and Logical Inference

Duke University	<i>Dept. of Psychology and Neuroscience</i>	Spring, 2007
Johns Hopkins University	<i>Center for Language and Speech Processing</i>	Spring, 2007
University of Delaware	<i>Dept. of Psychology, Cognitive Group</i>	Fall, 2006
University of Maryland	<i>Dept. of Linguistics</i>	Spring, 2006
Universite d'Aix-Marseille	<i>Psychology and Cognitive Sciences</i>	Spring, 2004
University of Wisconsin-Madison	<i>Dept. of Psychology</i>	Spring, 2003
Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy.	<i>Cognitive Science Group</i>	Fall, 2003
Yale University	<i>Dept. of Psychology, Cognitive Group</i>	Spring, 2002

### Vision and Cognition

Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy.	<i>Cognitive Science Group</i>	Fall, 2003
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### Invited Symposia

- Halberda, J. (2006). Logical inference, domain generality, and word-learning. *Invited talk presented at the annual meeting of the Eastern Psychological Association, Baltimore, MD.*
- Invited participant, *National Academy of Sciences "German-American Frontiers of Science" Conference, June 2005.*
- Invited participant, *AHRB Hang Seng Centre "Reflections on Innateness" Conference, April 2004.*

## Refereed Conference Talks

- Halberda, J. (2008). Developmental change in the computations that support the mapping of novel labels to novel objects. *Talk presented at ICIS, the International Conference on Infant Studies, Vancouver BC, Canada.*
- Hunter, T., Halberda, J., Lidz, J. & Pietroski, P. (2008). Beyond truth conditions: The semantics of 'most'. *Talk presented at SALT 18, the 18<sup>th</sup> conference of Semantics and Linguistic Theory, March 21-23, Amherst Massachusetts.*
- Halberda, J., Hunter, T., Pietroski, P. & Lidz, J. (2008). An interface between language and vision: quantifier words and set-based processing. *Talk presented at VSS, The Vision Sciences Society, May 9-14, Naples Florida.*
- Halberda, J., Lidz, J., Pietroski, P. & Hunter, T. (2007). Language and number: Towards a psychosemantics for natural language quantifiers. *Talk presented at HOWL 4, the 4<sup>th</sup> Hopkins Workshop on Language: Grammar in Cognition, October 12-14, Baltimore Maryland.*

- Taing, L., Halberda, J. & Feigenson, L. (2006). Counting in deaf and hearing individuals: An interaction of language and thought. *Talk presented at EPA, the annual meeting of the Eastern Psychological Association, Baltimore, MD.*
- Halberda, J. & Feigenson, L. (2005). Counting without individuals: Rapid parallel enumeration implicates preattentive object-files. *Talk presented at VSS, the Vision Sciences Society, Sarasota, FL.*
- Halberda, J. (2005). Logical inference motivates word-learning in two-year-olds. *Talk presented at SRCD, the Society for Research in Child Development, Atlanta, GA.*
- Halberda, J.P. (2002). Word-learning as logical inference: The case of mutual exclusivity. *Talk presented at BUCLD, the Boston University Conference on Language Development, Boston MA, USA.*

### **Refereed Conference Posters**

- Zosh, J., Feigenson, L. & Halberda, J. (2008). Parallel enumeration of multiple spatially-overlapping sets in infancy. *Poster presented at ICIS, the International Conference on Infant Studies, Vancouver BC, CANADA.*
- Spiegel, C., Zosh, J. & Halberda, J. (2008). Children use Disjunctive Syllogism and fast-mapping to learn multiple novel labels in a single session. *Poster presented at ICIS, the International Conference on Infant Studies, Vancouver BC, CANADA.*
- Halberda, J. (2007). Subitizing sets and set-based selection: Early visual features determine what counts as an individual for visual processing. *Poster presented at VSS, the Vision Sciences Society, Sarasota, FL.*
- Zosh, J. M., Feigenson, L., & Halberda, J. (2007). Infants' ability to enumerate multiple spatially-overlapping sets in parallel. *Poster presented at VSS, the Vision Sciences Society, Sarasota, FL.*
- Yamaguchi, M., Halberda, J., & Feigenson, L. (2007). Preschoolers' use of mutual exclusivity for mapping individual faces & voices. *Poster presented at SRCD, the Society for Research in Child Development, Boston, MA.*
- Zosh, J., Brinster, M. & Halberda, J. (2007). Inference Is Better Than Instruction. *Poster presented at SRCD, the Society for Research in Child Development, Boston MA, USA.*
- Franconeri, S., Halberda, J., Alvarez, G., & Feigenson, L., (2004). Common fate can define objects in multiple-object tracking. *Poster presented at VSS, the Vision Sciences Society, Sarasota, FL.*

- Halberda, J.P. (2003). Two-year-olds' fast-mapping of novel labels: How fast is fast? *Poster presented at SRCD, the Society for Research in Child Development, Tampa Bay, FL.*
- Feigenson, L., & Halberda, J.P. (2003). Infants build sets of individuals and track their spatial locations. *Poster presented at SRCD, the Society for Research in Child Development, Tampa Bay, FL.*
- Feigenson, L. & Halberda, J.P. (2002). Looking at the limits on numerical ability: Infants chunks large sets into smaller sets. *Poster presented at ICIS, the International Conference on Infant Studies, Toronto, CANADA.*
- Sorrentino, C. M. & Halberda, J.P. (2001). Do multiple proper names indicate multiple individuals? Evidence from children and adults. *Poster presented at SRCD, the Society for Research on Child Development, Minneapolis, MN.*
- Halberda, J.P. (2000). The novel label/novel object strategy: A case of developmental discontinuity? *Poster presented at ICIS, the International Conference on Infant Studies, Brighton, ENGLAND.*
- Halberda, J.P. (1999). Do novel labels go with novel objects? Evidence from a new word learning paradigm. *Poster presented at SRCD, the Society for Research on Child Development, Albuquerque, NM.*
- Rayls, K., Waid L. R., & Halberda, J. P. (1998). Correlates of attention deficit disorder in adults: Differential diagnosis. *Poster presented at APA, the Meeting of the American Psychological Association, San Francisco, CA.*
- Middaugh, L.D., Halberda, J.P., Gard, B.E. (1996). The DAD2-like agonist quinpirole produces monotonic reductions in motor activity of C57 mice. *Poster presented at Neuroscience, Society for Neuroscience Abstracts, 22.*

## **Courses Taught**

*Student evaluations available upon request*

*Mental Models, Mental Logic*

Johns Hopkins University, Each Fall since 2004

*Foundations of Mind*

Johns Hopkins University, Each Spring since 2005

*Advanced Seminar in Cognitive Development*

Department d'Etudes Cognitives, ENS, Paris, 2004

*Origins of Knowledge*

Teaching Fellow, Harvard University, 2003

*Cognitive Psychology*

Teaching Fellow, Harvard University, 2001

*Evolutionary Psychology*

Teaching assistant, New York University, 2000

*Introductory Logic I & II*

Teaching assistant, College of Charleston, 1997

*Physiological Psychology Lab*

Teaching assistant, College of Charleston, 1996

## **References**

Available upon request